IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A method of generating a synchronisation pulse representing a symbol boundary in an OFDM signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method comprising

providing a signal representing the degree of correlation between samples of a received signal which are separated by a period corresponding to the useful part of the symbol, the signal thus providing an output representing for each symbol an interval during which significant correlation is found, the method comprising

determining respective degrees of correlation in each of plural sub-intervals within said interval,

detecting a sub-interval within which a maximum degree of correlation occurs, and

providing a synchronisation pulse within the detected sub-interval.

Claim 2 (Currently Amended): A method as claimed in claim 1, wherein the detected sub-interval is determined by applying a threshold to the signal representing the degree of correlation.

Claim 3 (Original): A method as claimed in claim 2, wherein the threshold is varied.

Claim 4 (Original): A method as claimed in claim 3, wherein the threshold represents a value which is dependent upon the maximum value of the signal representing the degree of correlation.

Claim 5 (Previously Presented): A method as claimed in claim 1, in which the signal representing the degree of correlation is subject to filtering prior to using the signal to determine said detected sub-interval, the filtering being such that each filtered output sample represents, substantially, an average of a predetermined number of successive samples, said predetermined number being substantially less than the number of samples within a guard space.

Claim 6 (Original): A method as claimed in claim 5, in which the filtered output represents values averaged over a plurality of symbols.

Claim 7 (Original): A method as claimed in claim 6, in which the number of symbols over which the filtered output values are averaged increases during an acquisition stage, and in which the filtering is adjusted during that acquisition stage so as to decrease the number of successive samples, the average of which is represented by each filtered output sample.

Claim 8 (Previously Presented): A method as claimed in claim 5, wherein the filtered output is subjected to further filtering before being processed to provide a signal representing a fine frequency offset.

Claim 9 (Previously Presented): A method as claimed in claim 1, including the step of adjusting the timing of the synchronisation pulse only if a calculated error in the current timing exceeds a predetermined threshold.

Claim 10 (Previously Presented): A method as claimed in claim 1, including the step of adjusting the timing of the synchronisation pulse only if the current timing is determined to be in error over a predetermined number of symbol periods, the predetermined number of symbol periods being greater than one.

Claim 11 (Previously Presented): A method as claimed in claim 1, wherein the timing of the synchronisation pulse is adjusted in predetermined quantities corresponding to a plurality of sample periods.

Claim 12 (Currently Amended): A method of generating a synchronisation pulse representing a symbol boundary in an OFDM signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method including the step of (i) calculating ~~the~~ an error in the current timing (ii) comparing the calculated error with a predetermined threshold and (iii) adjusting the timing of the synchronisation pulse in response to the calculated error exceeding said predetermined threshold.

Claim 13 (Currently Amended): A method of generating a synchronisation pulse representing a symbol boundary in an OFDM signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method including the step of (i) counting the number of symbol periods over which the current timing is determined to be in error, and (ii) adjusting the timing of the synchronisation pulse in response to the counted symbol periods exceeding a predetermined number greater than one, wherein the error in the current timing is calculated by comparing a timing signal with a range of values corresponding to a sub-interval, said sub-

interval being detected by determining respective degrees of correlation in each of plural sub-intervals within a correlation interval within which significant correlation occurs, and detecting said sub-interval within which a maximum degree of correlation occurs.

Claim 14 (Original): A method as claimed in claim 13, wherein the timing of the synchronisation pulse is adjusted in response to the current timing having an error exceeding a predetermined threshold over said predetermined number of symbol periods.

Claim 15 (Previously Presented): A method of generating a synchronisation pulse representing a symbol boundary in an OFDM signal, said signal comprising symbols, each symbol being formed of successive complex samples, each of said successive complex samples having a sample period, and each symbol including useful symbol periods, said useful symbol periods being separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful symbol period, the method including the step of adjusting the timing of the synchronisation pulse in units of multiple sample periods.

Claim 16 (Previously Presented): A method as claimed in claim 12, wherein the timing of the synchronisation pulse is adjusted in predetermined quantities corresponding to a plurality of sample periods.

Claim 17 (Previously Presented): A method of receiving an OFDM signal, the method including the step of generating a synchronisation pulse using a method as claimed in any one of claims 1, 12, 13 and 15, and using the synchronisation pulse in order to apply a Fast Fourier Transform to complex samples derived from the OFDM signal.

Claim 18 (Original): A method according to claim 17, the method further including the step of providing, when the timing of the synchronisation pulse is altered, a signal representing the degree of alteration, and applying to the transformed samples phase rotations determined by this signal.

Claim 19 (Original): A method as claimed in claim 18, wherein the phase rotations are determined by values in a look-up table addressed in accordance with the signal representing the degree of alteration of the synchronisation pulse timing.

Claim 20 (Original): A method of receiving an OFDM signal, the method including the steps of generating a synchronisation pulse and using the synchronisation pulse in order to apply Fast Fourier Transform to complex samples derived from the OFDM signal, the method further including the step of providing, when the timing of the synchronisation pulse is altered, a signal representing the degree of alteration, and applying to the transformed samples phase rotations determined by this signal.

Claim 21 (Original): A method as claimed in claim 20, wherein the phase rotations are determined by values in a look-up table addressed in accordance with the signal representing the degree of alteration of the synchronisation pulse timing.

Claim 22 (Previously Presented): Apparatus for generating a synchronising pulse, the apparatus operating according to a method as claimed in claim 1.

Claim 23 (Previously Presented): An OFDM receiver arranged to operate in accordance with a method according to claim 17.

Claim 24 (Previously Presented): A method of generating a synchronisation pulse representing a symbol boundary in an OFDM signal comprising useful symbol periods separated by guard spaces, with data in each guard space corresponding to part of the data in a respective useful period, the method including the steps of:

adjusting the timing of the synchronisation pulse in predetermined quantities corresponding to a plurality of sample periods,

receiving an OFDM signal, by generating the synchronisation pulse,

using the synchronisation pulse in order to apply a Fast Fourier Transform to complex samples derived from the OFDM signal,

providing, when the timing of the synchronisation pulse is altered, a signal representing the degree of alteration, and

applying to the transformed samples phase rotations determined by the signal.

Claim 25 (Previously Presented): A method as claimed in claim 24, wherein the phase rotations are determined by values in a look-up table addressed in accordance with the signal representing the degree of alteration of the synchronisation pulse timing.